

ABSTRACT OF THE DISCLOSURE

A diagnostic system for analyzing the operation of an engine is provided including a capacitive probe for simultaneously detecting an amplitude of a first and a second electric near field present proximate a hybrid or DIS ignition coil housing. The capacitive probe includes a fastening device configured to removably attach the capacitive probe to the ignition coil housing
5 and a body bearing a first signal detector and a second signal detector. Each of the first signal detector and a second signal detector are arranged adjacent a location of a respective one of the first and second electric near fields for detecting an amplitude of the respective electric near field. Each signal detector outputs a signal representative of a respective electric near field.